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EXAMINER

TANG, KAREN C

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/072,238	<b>Applicant(s)</b> SCHREMPF ET AL.	
	<b>Examiner</b> KAREN C. TANG	<b>Art Unit</b> 2451	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/07/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **SUPPLEMENTAL DETAILED ACTION**

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/07/08 has been entered.
- Because Applicants have failed to challenge any of the Examiner's Official Notices on the limitation of "at least one server is configured to notify another server" as stated in the previous office action filed on 04/07/08 in a proper and reasonably manner, they are now considered as admitted prior art. See MPEP 2144.03
- Claims 1-45 are presented for further examination.
- Claims 1, 30, 33, 39, and 42 are amended.
- Claim 45 is newly entered.

### ***Response to Arguments***

Applicant's arguments filed 07/07/08 have been fully considered but they are not persuasive.

Applicant argues that the cited art of records (AAPA in view of Cusson US 6,487,641) failed to disclose the limitation of "to send said representation to at least one Second Tier identification server if said representation is similar to the previously received unidentified representation."

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Examiner disagrees.

It is AAPA in view of Cusson (WO 0063800) disclosed the alleged missing limitation as following:

at least one analysis module to receive a data stream from one or more of a plurality of sources (..digital media streaming over the internet and direct satellite broadcast, has a much larger audience, refer to Page 3, Lines 11-13, detection module located in the broadcast area to receiving broadcasting signal, refer to Page 3, Lines 2-3), the data stream including data for a work (refer to Page 5, Lines 6-8); to generate a representation of the work from at least a portion of said data stream (retain segment of media stream, refer to Page 6, Lines 13), and transmit said representation (pass on the retain segment to the next tier, refer to Page 6, Lines 17-18);

at least one First Tier identification server to receive said representation (next tier received the representation with larger database, refer to Page 6, Lines 15-19); if the first Tier is not able to identify the received said representation, the at least one second Tier identification server to identify said work from said representation (the multi-tier approach is to continue to pass to the next tier that has more comprehensive database, refer to Page 6, Lines 15-19);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding the limitation indicating, “the first tier identification server to determine whether said work from said representation is identifiable, to determine whether said representation is similar to a previously received unidentified representation if said work is not identifiable, and to send said representation to at least one second Tier identification server if said representation is similar to the previously received unidentified representation”

Cusson, in an analogous art disclosing:

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“the first tier identification server (203 (i), servers, refer to Page 7, Lines 26) to determine whether said work (dataset, refer to Page 8, Lines 29) from said representation (query, refer to Page 8, Lines 28) is identifiable (determine whether datasets is present in the cached data, refer to Page 8, Lines 28-31), to determine whether said representation is similar to a previously received unidentified representation (determining an identifier corresponding to the received query is known (e.g., similar) to the stored dataset identifier corresponding to a cache missed in another word “previously received unidentified representation”, Page 14, Lines 5-17) if said work is not identifiable (when dataset cannot be found in the cached data, refer to Page 12, Lines 18-19), and to send said representation to at least one second Tier identification server if said representation is similar to the previously received unidentified representation (refer to Col 5, Lines 50-60 and Col 12, Lines 50-67).”

Therefore, the argument is not persuasive.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-30, 32, 33, 35, 38, 39, and 41, 42, 44, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Applicant Admitted Prior Art hereinafter AAPA (Background Invention) in view of Cusson et al hereinafter Cusson (WO 0063800).

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1. Referring to Claim 1, AAPA disclosed a new media identification system comprising:  
at least one analysis module to receive a data stream from one or more of a plurality of sources (..digital media streaming over the internet and direct satellite broadcast, has a much larger audience, refer to Page 3, Lines 11-13, detection module located in the broadcast area to receiving broadcasting signal, refer to Page 3, Lines 2-3), the data stream including data for a work (refer to Page 5, Lines 6-8); to generate a representation of the work from at least a portion of said data stream (retain segment of media stream, refer to Page 6, Lines 13), and transmit said representation (pass on the retain segment to the next tier, refer to Page 6, Lines 17-18);

at least one First Tier identification server to receive said representation (next tier received the representation with larger database, refer to Page 6, Lines 15-19); if the first Tier is not able to identify the received said representation, the at least one second Tier identification server to identify said work from said representation (the multi-tier approach is to continue to pass to the next tier that has more comprehensive database, refer to Page 6, Lines 15-19);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding the limitation indicating, “the first tier identification server to determine whether said work from said representation is identifiable, to determine whether said representation is similar to a previously received unidentified representation if said work is not identifiable, and to send said representation to at least one second Tier identification server if said representation is similar to the previously received unidentified representation”

Cusson, in an analogous art disclosing:

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“the first tier identification server (203 (i), servers, refer to Page 7, Lines 26) to determine whether said work (dataset, refer to Page 8, Lines 29) from said representation (query, refer to Page 8, Lines 28) is identifiable (determine whether datasets is present in the cached data, refer to Page 8, Lines 28-31), to determine whether said representation is similar to a previously received unidentified representation (determining an identifier corresponding to the received query is known (e.g., similar) to the stored dataset identifier corresponding to a cache missed in another word “previously received unidentified representation”, Page 14, Lines 5-17) if said work is not identifiable (when dataset cannot be found in the cached data, refer to Page 12, Lines 18-19), and to send said representation to at least one second Tier identification server if said representation is similar to the previously received unidentified representation (refer to Col 5, Lines 50-60 and Col 12, Lines 50-67).”

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA and Cusson because Cusson's teaching of “the first tier identification server to determine whether said work from said representation is identifiable, to determine whether said representation is similar to a previously received unidentified representation if said work is not identifiable, and to send said representation to at least one second Tier identification server if said representation is similar to the previously received unidentified representation” would improve system efficient of AAPA's by providing a process that is capable of determine what to cache on the basis of probable future request for the information to reduce the cost and resource for determine when a “miss” occur repetitively in the cache/database.

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2. Referring to Claim 2, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said at least one analysis module further includes an input port configured to receive said data from a networked source (refer to Page 3, Lines 7).

3. Referring to Claim 3, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said at least one analysis module further includes an input port configured to receive said data from a broadcast source (refer to Page 4, Lines 9).

4. Referring to Claim 4, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said at least one analysis module further includes an input port configured to receive said data in the form of a pre-broadcast digital form (refer to Page 4, Lines 1).

5. Referring to Claim 5, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said at least one analysis module and said at least one First Tier Identification server coupled over a network (refer to Page 5, Lines 1-15).

6. Referring to Claim 6, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said network comprises the internet (refer to Page 5, Lines 14).

7. Referring to Claim 7, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said representation comprises feature vectors (AAPA disclosed the representation could be using the feature factors because these are well known in the art, refer to Page 12, Lines 19);



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8. Referring to Claim 8, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said representation comprises a spectral representation of said received work (AAPA disclosed the representation could be using the feature factors because these are well known in the art, refer to Page 13, Lines 1-2);

9. Referring to Claim 9, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said representation comprises the text output of a speech recognition system (AAPA disclosed the representation could be using the feature factors because these are well known in the art, refer to Page 13, Lines 1-3);

10. Referring to Claim 10, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said representation comprises the musical score output of a music transcription system (AAPA disclosed the representation could be using the feature factors because these are well known in the art, refer to Page 13, Lines 1-5);

11. Referring to Claim 11, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said representation comprises a bit calculated key (AAPA disclosed the representation could be using the feature factors because these are well known in the art, refer to Page 13, Lines 1-9);

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12. Referring to Claim 12, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said First Tier Identification server is configured to identify said received work using feature vector from said representation (AAPA disclosed the it is well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 5-9 and Page 12, Lines 18-20);

13. Referring to Claim 13, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said First Tier Identification server is configured to identify said received work using a spectral representation of said received work (AAPA disclosed the representation could be using the feature factors because these are well known in the art, refer to Page 13, Lines 1-2);

14. Referring to Claim 14, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said First Tier Identification server is configured to identify said received work using the text output of a speech recognition system from said representation (AAPA disclosed the it is well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 10-17 and Page 12, Lines 18-20);

15. Referring to Claim 15, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said First Tier Identification server is configured to identify said received work using the musical score output of a music transcription system from said representation (AAPA disclosed the it is well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 10-20 and Page 12, Lines 18-20);

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16. Referring to Claim 16, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said First Tier Identification server is configured to identify said received work using a bit calculated key from said representation (AAPA disclosed the it is well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 10-17 and Page 12, Lines 18-20);

17. Referring to Claim 17, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said Second Tier Identification server is configured to identify said received work using feature vector from said representation (AAPA disclosed the it is well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 5-9 and Page 12, Lines 18-20);

18. Referring to Claim 18, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said Second Tier Identification server is configured to identify said received work using a spectral representation of said received work (AAPA disclosed the representation could be using the feature factors because these are well known in the art, refer to Page 13, Lines 1-2);

19. Referring to Claim 19, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said Second Tier Identification server is configured to identify said received work using the text output of a speech recognition system from said representation (AAPA disclosed the it is

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well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 10-17 and Page 12, Lines 18-20);

20. Referring to Claim 20, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said Second Tier Identification server is configured to identify said received work using musical score output of a music transcription system from said representation (AAPA disclosed the it is well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 10-20 and Page 12, Lines 18-20);

21. Referring to Claim 21, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said Second Tier Identification server is configured to identify said received work using using a bit calculated key from said representation (AAPA disclosed the it is well known in the art to for servers to identify received work using variety of method known in the art, refer to Page 14, Lines 10-17 and Page 12, Lines 18-20);

22. Referring to Claim 22, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed the one analysis modules are further configured to received a plurality of streaming source for analysis at the single location (refer to refer to Page 5, Lines 10-15).

23. Referring to Claim 23, AAPA and Cusson disclosed the system of claim 1, AAPA futher disclosed wherein said at least one analysis modules are further configured to receive a plurality

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of streaming sources for analysis at a plurality of different access point of the network (refer to receiving media streams, refer to Page 6, lines 12-13).

24. Referring to Claim 24, AAPA and Cusson disclosed system of Claim 1, AAPA disclosed wherein said at least one analysis module is configured to provide said representations to said at least one First Tier ID server at a predetermined time interval (refer to Page 5, Lines 8-10).

25. Referring to Claim 24, AAPA and Cusson disclosed system of Claim 1, wherein said predetermined time interval comprises at least once a day (refer to Page 5, Lines 8-10)

26. Referring to Claim 26, AAPA and Cusson disclosed system of Claim 24, AAPA disclosed wherein said predetermined time interval comprises approximately once an hour (refer to Page 5, Lines 8-10);

27. Referring to Claim 27, AAPA and Cusson disclosed system of Claim 24, AAPA disclosed wherein said predetermined time interval comprises approximately once an hour (refer to Page 5, Lines 8-10).

28. Referring to Claim 28, AAPA and Cusson disclosed the system of Claim 24, AAPA wherein said at least one analysis module is configured to provide said representation to said at least one First Tier identification server based on an out of band event (refer to Page 2, Lines 1-5).

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29. Referring to Claim 29, AAPA and Cusson disclosed the system of Claim 1, AAPA wherein said First Tier Identification server is further configured to generate a playlist of identified work (refer to Page 5, Lines 10-15).

30. Referring to Claim 30, AAPA disclosed a method for identifying a work from data received by an analysis module that generates a representation of said data and wherein said data includes data of said work comprising:

receiving a representation of the work by a First Tier Identification server (next tier received the representation with larger database, refer to Page 6, Lines 15-19);

attempting, by said First Tier Identification server, to identify said work based on comparing the received representation to a plurality of cached representation (refer to Page 6, Lines 12-18);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding the limitation indicating, “if the First Tier Identification server has not identified the work, determining whether said representation is similar to a previously received unidentified representation; and if said representation is similar to the previously received unidentified representation, sending said received representation to a Second Tier Identification server to identification.”

Cusson, in an analogous art disclosing:

“if the First Tier Identification server has not identified the work (when dataset cannot be found in the cached data, refer to Page 12, Lines 18-19), determining whether said representation

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is similar to a previously received unidentified representation (determining an identifier corresponding to the received query is known (e.g., similar) to the stored dataset identifier corresponding to a cache missed in another word “previously received unidentified representation”, Page 14, Lines 5-17)), and if said representation is similar to the previously received unidentified representation (refer to Col 5, Lines 50-60 and Col 12, Lines 50-67), sending said received representation to at second Tier identification server”

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA and Cusson because Cusson's teaching of “if the First Tier Identification server has not identified the work, determining whether said representation is similar to a previously received unidentified representation; and if said representation is similar to the previously received unidentified representation, sending said received representation to a Second Tier Identification server to identification” would improve system efficient of AAPA's by providing a process that is capable of determine what to cache on the basis of probable future request for the information to reduce the cost and resource for determine when a “miss” occur repetitively in the cache/database.

31. Referring to Claim 32, AAPA and Cusson disclosed the method of Claim 30, AAPA disclosed the act of providing a reference database of representation expected to be detected on said First Tier Identification Server (refer to Page 6, Lines 10-20).

32. Referring to Claim 33, AAPA disclosed a system for identifying a work using an N Tiered Identification server system wherein said work is included in data received by an analysis

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module and wherein said analysis module generate a representation of said data and transmits said representation to said N tiered identification server system comprising:

a Tier N server including a database of a first plurality of representation of identified work (refer to Page 6, Lines 13-19);

at least one Tier N+1 server including a database of a second plurality of representations of identified works (the next tier has a bigger database that contains representations of identified work, refer to Page 6, Lines 13-19);

wherein said Tier N server is configured to receive a representation and attempt to identify a work by comparing said representation to representation in said first plurality of representation (refer to Page 6, Lines 12-18);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding the limitation indicating,

“a Tier N contains a list of previously received unidentified representations;

Tier N server compare said representation to the previously received unidentified representation in the list if said representation does not correspond to one of said first plurality of representation, and to send said representation to said Tier N+1 server for identification if said representation is similar to one of said previously received unidentified representation.”

Cusson, in an analogous art disclosing

“a Tier N contains a list of previously received unidentified representations (lists of entry 501(i), refer to Page 14, Lines 5);



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Tier N server compare said representation to the previously received unidentified representation in the list if said representation does not correspond to one of said first plurality of representation (queries datasets are not found, refer to Page 12, Lines 18-19), and to send said representation to said Tier N+1 server for identification (refer to Col 5, Lines 50-60 and Col 12, Lines 50-67) if said representation is similar to one of said previously received unidentified representation (determining an identifier corresponding to the received query is known (e.g., similar) to the stored dataset identifier corresponding to a cache missed in another word “previously received unidentified representation”, Page 14, Lines 5-17).”

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA and Cusson because Cusson's teaching of “a Tier N contains a list of previously received unidentified representations and Tier N server compare said representation to the previously received unidentified representation in the list if said representation does not correspond to one of said first plurality of representation, and to send said representation to said Tier N+1 server for identification if said representation is similar to one of said previously received unidentified representation” would improve system efficient of AAPA's by providing a process that is capable of determine what to cache on the basis of probable future request for the information to reduce the cost and resource for determine when a “miss” occur repetitively in the cache/database.

33. Referring to Claim 35, AAPA and Cusson disclosed the system of Claim 33, AAPA disclosed wherein each successive said at least one Tier N+ 1 server includes a database larger said database of said N Tier server (refer to Page 6, Lines 18).

34. Referring to Claim 38, AAPA and Cusson disclosed the system of Claim 33, AAPA disclosed wherein each successive said at least one Tier N+ 1 server includes a database larger said database of said N Tier server (refer to Page 6, Lines 18).

35. Referring to Claim 39, AAPA disclosed a system for identifying new media comprising:  
means for receiving representation of a word by a First Tier Identification server (next tier received the representation with larger database, refer to Page 6, Lines 15-19);

means for attempting, by said First Tier Identification server, to determine whether said work from said representation is identifiable based on comparing the received representation to a plurality of cached representation (refer to Page 6, Lines 12-18);

means for sending said received representation to a Second Tier Identification server to identification (refer to Page 6, Lines 12-18);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding the limitation indicating, “means for determine whether said representation is similar to a previously received unidentified representation based on comparing the received representation to a list of unidentified representation if said work is not identified;

means for adding the received representation to the list of unidentified representations if said representation is not similar to the previously received unidentified representation; and  
means for caching said representation in the First Tier Identification server if the representation is identified by the Second Tier Identification server”

Cusson, in an analogous art disclosing:

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“means for determine whether said representation is similar to a previously received unidentified representation (determining an identifier corresponding to the received query is known (e.g., similar) to the stored dataset identifier corresponding to a cache missed in another word “previously received unidentified representation”, Page 14, Lines 5-17) based on comparing the received representation to a list of unidentified representation if said work is not identified (when dataset cannot be found in the cached data, which contains a lists of datasets, refer to Page 12, Lines 18-19);

means for adding the received representation to the list of unidentified representations if said representation is not similar to the previously received unidentified representation (keep of tracks of the number of times when a query/representation is not being found, refer to Page 14, lines 2-4 and 10-16); and means for caching said representation in the First Tier Identification server (server 203 comprising capability to adds a query information, refer to Page 14, Lines 14-17 and Lines 20-22) if the representation is identified by the Second Tier Identification server (corresponding to the status of the source database/server, the First Tier servers 203 updates its database information, refer to Page 17, Lines 1-7)”

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA and Cusson because Cusson's teaching of “means for determine whether said representation is similar to a previously received unidentified representation based on comparing the received representation to a list of unidentified representation if said work is not identified and means for adding the received representation to the list of unidentified representations if said representation is not similar to the previously received unidentified representation and means for caching said representation in the First Tier Identification server if

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the representation is identified by the Second Tier Identification server” would improve system efficient of AAPA's by providing a process that is capable of determine what to cache on the basis of probable future request for the information to reduce the cost and resource for determine when a “miss” occur repetitively in the cache/database.

36. Referring to Claim 41, AAPA and Cusson disclosed the method of Claim 39, AAPA disclosed the act of providing a reference database of representation expected to be detected on said First Tier Identification Server (refer to Page 6, Lines 10-20).

37. Referring to Claim 42, AAPA disclosed a program storage device readable by a machine containing a set of instructions to perform a method by the machine, the method comprising:

receiving a representation of a work by a First Tier Identification server (next tier received the representation with larger database, refer to Page 6, Lines 15-19) wherein the representation was generated from at least a portion of a data stream that included the work (, media stream comprising contents, refer to Page 5, Lines 5-7, retain segment of media stream, refer to Page 6, Lines 13);

attempting, by said First Tier Identification server, to identify said work based on comparing the received representation to a plurality of cached representation (refer to Page 6, Lines 12-18);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding the limitation indicating, “if the First Tier Identification server has not identified the work, determining whether said representation is similar to a previously received unidentified

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representation; and if said representation is similar to the previously received unidentified representation, sending said received representation to a Second Tier Identification server to identification.”

Cusson, in an analogous art disclosed. “if the First Tier Identification server has not identified the work (when dataset cannot be found in the cached data, refer to Page 12, Lines 18-19), determining whether said representation is similar to a previously received unidentified representation (determining an identifier corresponding to the received query is known (e.g., similar) to the stored dataset identifier corresponding to a cache missed in another word “previously received unidentified representation”, Page 14, Lines 5-17)), and if said representation is similar to the previously received unidentified representation (refer to Col 5, Lines 50-60 and Col 12, Lines 50-67), sending said received representation to at second Tier identification server”

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA and Cusson because Cusson's teaching of “if the First Tier Identification server has not identified the work, determining whether said representation is similar to a previously received unidentified representation; and if said representation is similar to the previously received unidentified representation, sending said received representation to a Second Tier Identification server to identification” would improve system efficient of AAPA's by providing a process that is capable of determine what to cache on the basis of probable future request for the information to reduce the cost and resource for determine when a “miss” occur repetitively in the cache/database.

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38. Referring to Claim 44, AAPA and Cusson disclosed the device of Claim 42, AAPA disclosed the act of providing a reference database of representation expected to be detected on said First Tier Identification Server (refer to Page 6, Lines 10-20).

39. Referring to Claim 45, AAPA and Cusson disclosed the system of Claim 1, AAPA further disclosing the at least one First Tier identification server to add said representation to an index of unidentified representation (server 203 comprising capability to adds a query information, refer to Page 14, Lines 14-17 and Lines 20-22) if the representation is identified by the Second Tier Identification server (corresponding to the status of the source database/server, the First Tier servers 203 updates its database information, refer to Page 17, Lines 1-7) if said representation is not similar to any previously received unidentified representation (keep of tracks of the number of times when a query/representation is not being found, refer to Page 14, lines 2-4 and 10-16).

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art hereinafter AAPA in view of Cusson et al hereinafter Cusson (WO 0063800) in further view Official Notice (Admitted Prior Art).

40. Referring to Claim 34, the system of claim 33, although AAPA and Cusson disclosed the invention substantially as claimed, AAPA did not explicitly teach wherein said at least one Tier N+ 1 server is configured to notify said Tier N server of a repeating segment if a repeating segment is identified.

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Official Notice is taken that it would have been obvious to a person of ordinary skill in the art to indicate the notification of the servers from the Tier N+1 server to the Tier N server.

The suggestion/motivation would have been that by providing the notification, it would provide the information to let the system to know that the search/query of the presentation is complete and thus the system can stop the task of updating search without further use unnecessary bandwidth.

Claims 31, 36, 40 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art hereinafter AAPA in view of Cusson et al hereinafter Cusson (US 6,487,641) in further view Ward (US 6,526,411).

41. Referring to Claim 31, AAPA and Cusson disclosed the system of Claim 30, although AAPA and Cusson disclosed the invention substantially as claimed, AAPA did not explicitly disclosing “wherein said second tier identification server includes a plurality of tiers of identification servers.”

Ward, in an analogous art disclosed, “wherein said second tier identification server includes a plurality of tiers of identification servers (refer to Col 5, Lines 30-46).”

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA, Cusson and Ward because Ward's teaching of “wherein said second tier identification server includes a plurality of tiers of identification servers” demonstrates the obviousness as indicated by AAPA that the method and the system are utilizing the "multi-tier" approach, so, within a server, it could includes a plurality of tiers of servers,

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which can improve the system's efficiency by expertising the searching time of a items by utilizing plurality of resources.

42. Referring to Claim 36, the system of claim 35, although AAPA and Cusson disclosed the invention substantially as claimed, AAPA is silent regarding "wherein all said at least one N+1 tiers operate in parallel."

Ward, in an analogous art disclosed, wherein all said at least one N+1 tiers operate in parallel (refer to Col 7, Lines 60-67 and Col 8, Lines 1-10).

Hence, providing functions disclosed by Ward, would be desirable for a user to implement in a system so it is easy to use, and can easily add or subtract music or videos.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of AAPA and Cusson, by including the features presented by Ward.

43. Referring to Claim 40, AAPA and Cusson disclose the system of Claim 39, although AAPA and Cusson disclosed the invention substantially as claimed, AAPA did not explicitly teach wherein said second tier identification server includes a plurality of tiers of identification servers.

Ward, in an analogous art disclosed, wherein said second tier identification server includes a plurality of tiers of identification servers (refer to Col 5, Lines 30-46).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA, Cusson and Ward because Ward's teaching of "wherein said second tier identification server includes a plurality of tiers of identification servers"



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demonstrates the obviousness as indicated by AAPA that the method and the system are utilizing the "multi-tier" approach, so, within a server, it could includes a plurality of tiers of servers, which can improve the system's efficiently by expertise the searching time of a items by utilizing plurality of resources.

44. Referring to Claim 43, AAPA and Cusson disclosed the device of Claim 42, although AAPA and Cusson disclosed the invention substantially as claimed, AAPA did not explicitly teach wherein said second tier identification server includes a plurality of tiers of identification servers.

Ward, in an analogous art disclosed, wherein said second tier identification server includes a plurality of tiers of identification servers (refer to Col 5, Lines 30-46).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine AAPA, Cusson and Ward because Ward's teaching of "wherein said second tier identification server includes a plurality of tiers of identification servers" demonstrates the obviousness as indicated by AAPA that the method and the system are utilizing the "multi-tier" approach, so, within a server, it could includes a plurality of tiers of servers, which can improve the system's efficiently by expertise the searching time of a items by utilizing plurality of resources.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art hereinafter AAPA in view of Cusson et al hereinafter Cusson (US 6,487,641) in further view Ward (US 6,526,411) with Official Notice (Admitted Prior Art).

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45. Referring to Claim 37, the system of claim 36, although AAPA, Cusson and Ward disclosed the invention substantially as claimed. AAPA, Cusson and Ward are silent regarding wherein the operation of said N+1 tiers is aborted upon the identification of an unknown segment by a member of said successive tiers.

Official Notice is taken that it would have been obvious to a person of ordinary skill in the art to indicate the notification of the servers from the Tier N+1 server to the Tier N server.

The suggestion/motivation would have been that by providing the notification, it would provide the information to let the system to know that the search/query of the presentation is complete and thus the system can stop the task of updating search without further use unnecessary bandwidth.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).

Wolf et al (US 6,463,508) "Method and apparatus for caching a media stream" disclosing a system and method for caching media streams at proxy servers.

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Logan et al (US 6,088,455) “Method and apparatus for selectively reproducing segments of broadcast programming” disclosing a method and systems for editing broadcast programming signals which allow a user to compile a proprietary signal tailored to the user’s individual preferences are provided.

Levy et al (US 7,349,552) “Connected audio and other media objects” disclosing media objects are transformed into active connected objects via identifiers embedded into them or their containers.

**Examiner’s Notes:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Karen C Tang/

Examiner, Art Unit 2151